State of Iowa IT Project Request # 4

Water Allocation Compliance and Online Permitting Project

Continuation – Water Use Database Web Application

ESD-WQB-13-001

Department Of Natural Resources

Environmental Services Division

Water Quality Bureau

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Introduction: The Project Request is submitted to the TCC IPSC to gain support for the project and identify if there are existing applications or application components that can leveraged for the proposed project. This document is intended to answer high level questions about the project as details about total cost, timeframe and quantified benefits are not known as this document is expected to be completed during project planning. Submit this document to: xxxxx@iowa.gov TCC approval of this document results in the permission to proceed with project planning. Agency may be directed to complete the Project Execution Request before issuing an RFP or beginning internal development work.

Document Purpose: This document is to be completed when there is an identified need and tentative plan to initiate a project. Funding may not have been identified for the project yet (seeking IOWAccess funding, waiting on legislative decision or grant award).

Instructions for completing this Project Request form:

1. Replace [bracketed text] on the cover page with your project and agency information.
   Note: Please do not remove or modify content in the footer area.
2. Complete the entire template. Each section contains abbreviated instructions, shown in italics, and a content area. The content area is marked with a placeholder symbol [ ] or with a table. Relevant text from other project deliverables may be pasted into content areas.
   Note: Please do not remove the italicized instructions.

3. Avoid using acronyms. Write out the department name and program name.

Project Summary

Project Name: Water Allocation Compliance and Online Permitting Project (Continuation – Water Use Database Web Application)

Problem Statement: *What is the need?*

The Water Use database has been in existence since the 1970's. The 2011 technology upgrade was initiated as a result of external stakeholder process review and request. It has been intended to allow customer convenience through access via the Internet.

The first phase of this project was not successful in achieving the expected outcomes. When it became apparent that expectations had not been met, the department performed a review of the project planning and design documentation and concluded that the department had not adequately documented project expectations, so could not hold the contractor accountable for failure to provide all of the expected deliverables. There were several contributing factors. Critical among those were the lack of knowledgeable, consistent IT Program Analyst support and the lack of an effective program-driven scope.

Program Analysts provide critical support and guidance to program staff that have little or no knowledge of IT project management requirements. During first phase planning, five different Business Analysts were assigned to this project. The frequent changes resulted in considerable disruptions to planning and follow-through. In addition, when assigned to the project, most of the five analysts lacked sufficient program-related knowledge and experience to facilitate program staff development of an effective project scope. In this context, program staff had challenges defining and communicating their needs clearly in the form of an effective project scope. The outcome of this combination of factors was scope creep, change controls, unmet deadlines, and undelivered expectations.

Recognizing the need to make resource adjustments to assure continuity in planning and coordination, the Water Quality Bureau Chief hired an experienced analyst as a permanent DNR employee to gather requirements and manage projects.
The Director, in response to a request from the Governor's office, selected a stakeholder group to review the water use permitting process, pursuant to "Executive Order 80". The stakeholder group was asked to develop recommendations for streamlining the application and review processes to achieve faster and more efficient permit processing times. Based upon their review, the stakeholders expressed the need for various process improvements for permitting, reporting, and fee collection for approximately 4,000 permittee's. They asked for electronic submittal of annual usage reports and incorporation of hydro-geologic reports to make the application process less time consuming. They asked that we minimize manual paper/digitization processes to allow permittee's to enter on-line information in an edited format thereby improving data quality. The stakeholder group met on February 12, 2013 and on March 12, 2013. The group unanimously approved the following recommendations:

1. Reduce the time it takes to complete renewals to less than thirty (30) days. Currently 13.6% of the renewal applications take more than thirty (30) days to complete.
2. Reduce the time it takes to complete new or modified applications to less than 30 days. Currently 17.3 % of new and modified applications for permits take more than ninety (90) days to complete.
3. Update the online application that allows an applicant to complete the request without intervention from Water Use staff.

It is important to note the group provided the following comment regarding the database as it exists today/with Phase 1: "The online application and permitting processes should continue to be reviewed and revised where necessary to make the system as user friendly as possible and its availability should be better advertised. In its current form, the online application and permitting system appears to be quite functional, reliable and has a lot of promise; however, improvements should be made to improve the end user experience whenever they are discovered and necessary."

The department is requesting approval to proceed with requirements and development of this project.

Project Description: *What are the project goals? Goals are high level and provide a context for project. More detailed information about the project is described in the success criteria.*

1. Continue to streamline workflow and data processes. Eliminating redundancies and include access to data sources that are necessary in fulfilling permitting requests.
2. Facilitate passage of information electronically to and from the general public, permittees, industry members, organizations, government agencies, DNR field and central office staff, politicians, etc. in a timely manner.
3. Enable public access 24/7 to information regarding permits in real time, eliminating unnecessary phone calls, printing and mailing of forms and subsequent staff data entry.
4. Enable the use of electronic forms, reduce duplication and improve data integrity.
5. Improve communication with the applicant while the application is being processed.

Alignment with agency or Governor's strategic plan: *Describe the specific agency or Governor strategic plan items that this problem's resolution will help address.*

The Strategic Plan of the DNR states "Ensure sustainable groundwater resources for economic growth of life of Iowa." And "finalize the state water plan and implement the recommendations of the Groundwater Value Stream Mapping Event."

Potential Solutions: *Are you aware of any potential solutions? Describe Solutions. Agencies are not expected to have a solution in mind but it is important to know if there are any identified solutions. Are you aware of any off-the-shelf software solutions or another system in use at another Iowa department or in another State?*

This is the second phase of an application that is currently in use. The solution is to make enhancements to increase productivity and allow the applicant to fulfill the request online. This will include adding data elements not currently available that are necessary for the permitting process.

Benefits Summary (What are your success criteria?): *Describe specific benefits and how these will be measured and reported. Who are the customers of this project and how do they benefit? Project benefits are outcomes*. What does success look like?

1. The permit holders will have ability to renew their permit/s online providing for all of their permits. Today the system does not provide the ability for a permit holder to renew and pay for all of their permits at one time. These permits are currently being handled manually by DNR staff. This will decrease staff time and assistance. The stake holder will benefit from being able to renew their permits online. This will be measured by the number of permits renewed online for stakeholders who have multiple permits.

2. If DNR staff is called to handle a permitee with multiple permits, they will be able to run a query ad know exactly what permits the permitee holds and which are paid for. This will benefit the DNR staff by streamlining the process and allow the permitee to have their permit issues resolved more quickly.

3. Information will be entered into the system by the permitee. This will eliminate the need for a permitee to fill out a paper form and for the DNR staff to transfer that information into the system

4. The system will be linked to other compliance data for reporting and tracking and usability. Fee invoicing will be generated from the system. This will streamline the current process that takes multiple steps to process.

5. Improved enforcement capability. Special Conditions enforcement, reminder notices, exceedance notices, and database tracking of enforcement correspondence, will be created within the system. The DNR staff will have the ability to track this through the system.

6. The system will be linked to drought conservation plans, and well data that currently exists in other databases. This information is currently retrieved manually. This will allow us to provide better Customer Service to our permitee while on the phone with them.

7. The Water Use Admin staff will be able to create permit overrides without the intervention of the IT staff. This will decrease the number of requests for SQL assistance.

Project Impact: *What is the impact if this project is not approved? Loss of funding? Risk to the public?*

The main risk is that we will not be meeting the commitments to the external stakeholders. The program will continue to require excessive manual input and resources will continue to be utilized inefficiently. There is more data that is needed for this program. If this phase is not implemented the data stream will need to be managed manually.

Project Technology: What technologies will be used in the project? Describe any departmental application or technology standards or expectations. Since the purpose of the project request is to identify projects at a very early stage technologies may not be known at this time.

The basic processes for linking to other databases, maps and well information already exist in applications at the DNR; this will not be new technology.

Project Type: Maintenance _____ New _____ Multi-phased __x____

Maintenance- is a work to be completed on an existing software or hardware asset. **New**- is a project that has a single phase. Examples: Rewrite a client server application into a web application; Replace an MS Access application with a client server application and SQL database; Create a new application to meet a new federal or state initiative.

Multi-phased- is a new project with multiple phases or the subsequent phase of a project already implemented. Example: The project is intended in Phase 1 to implement the web application, Phase 2 will add epayment and a mobile application and Phase 3 will expand the application to another program area.

External/Internal Urgency: Are there any funding/legislative deadlines that impact this request? Are there organizational/staffing changes impacting the request?

There is not hard timeline based upon legislative deadlines. The 2014 permit fees have been marked to pay for this project.

Funding Summary

Estimated total Project Costs: Provide a high level estimate or range. Project costs include hard dollar expenses for hardware, software and services AND soft expenses of internal staff time.

Under 50k _____ 50 to 100k _____ 100-500k __x__ 500k to 2 million _____

2M to 5M _____ Over 5M _____ Unknown _____

Funding Source: Iowa Access, Pool, Federal Grant, Unknown, etc.

The Water Use application will be fully funded from permit fees as well as any maintenance items.

Project Sustainability Describe the plan to support and maintain this project. What kind of on-going costs will there be during the lifetime of this asset? Describe how often rule changes will require modifications to your system. The industry average for annual software support is 18% of the initial development or acquisition cost.

This application will be supported and maintained by DNR contracted staff that already exist. This support is paid for by permit fees. Rules for Water Use evolve and it is anticipated that this will not exceed the industry average.

Risk Assessment Describe specific risks and how they will impact the project. A risk is an obstacle to the project being completed on time on within budget. How will these be mitigated? Identify and list the major risk factors that could result in the project not producing the expected results. These should include both internal factors (for example, the technology involved fails to work as projected or is a new technology staff is not experienced with) and external factors (for example, federal interface specifications have not been published yet).

Include in this section also the key assumptions on which the project plan is based. In this case, the assumptions are mostly related to external factors (for example, government environmental policy remaining stable) which are anticipated in project planning, and on which the feasibility of the project depends.

The Water Use staff has very limited time to devote to the project. Therefore it will be managed over a period of time. The risk is that we need these changes made in order to help the Water Use staff better utilize their time. It takes time to create the requirements. The assumption will be that the Water Use staff will allot a minimum of 4 hours a week for needed discussions to create the specific requirements documents.

Recommendations and Approvals

Recommendation of the State CIO to the DAS Director:

Authorize this IT procurement Yes _X_ No ___

Alternatives suggested by the State CIO Yes ___ No _X_

Additional comments from the State CIO:

Recommendation by the TEC is for approval. The State CIO subsequently approved.

DAS Director's action:

Authorize this IT procurement Yes _X_ No ___

DAS Director's signature and date:

The above IT procurement concept approved by Director Carroll on __6/10/13__

Comments: **None**